# NFIRS 5.0 Self Study Program Fire Service Casualty Module: NFIRS 5

#### **Objectives**

After completing the Fire Service Casualty Module the student will be able to:

- Describe when the Fire Service Casualty Module is to be used.
- 2. Demonstrate how to complete the Fire Service Casualty Module given the scenario of a hypothetical incident.

#### Pre-Test #5 - Fire Service Casualty Module

- 1. The Fire Service Casualty Module is used to report injuries, deaths, or exposures to fire service, EMS, and other public safety personnel that occur in conjunction with any incident response. (Answer B)
  - (a) True
  - (b) False
- 2. A Basic Module must be completed if the Fire Service Casualty Module is completed. (Answer A)
  - (a) True
  - (b) False
- 3. The Fire Service Casualty Module is a required NFIRS Module. (Answer A)
  - (a) True
  - (b) False
- 4. The Fire Service Casualty Module should be completed if a firefighter is injured while exercising at the fire station. (Answer A)
  - (a) True
  - (b) False
- 5. The Fire Service Casualty Module should be completed if a firefighter is injured while off-duty away from the fire station. (Answer B)
  - (a) True
  - (b) False

Using the Fire Service Casualty

#### Using the Fire Service Casualty Module

The Fire Service Casualty Module is used to report fire service personnel injuries, deaths, or exposures involved with any incident response.

An exposure is defined as contact by fire service personnel with a toxic substance or harmful physical agent through any route of entry (e.g. inhalation, ingestion, skin absorption, or direct contact). Exposures can be reported regardless of the presence of clinical signs and symptoms.

NOTE: An exposure fire is NOT the same as an exposure to fire service personnel.

The work performed by fire service personnel is inherently dangerous. In fact, the risk of experiencing a casualty is always present. It is important for the fire service to make a constant effort to improve safety. Conducting drills, traveling to emergencies, and providing emergency services all lead to fire service casualties.

Recording firefighter casualty information provides data on specific, perhaps correctable, hazards. It can also indicate trends that can lead future safety improvement efforts. Health and Safety Officers find this information particularly useful during the process of working to reduce risks at incidents.

Section A

# Section A: FDID, Incident Number, Exposure Number

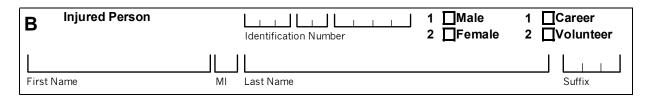


The information in Section A of the Fire Module is drawn from Section A of the Basic Module. In an automated system, some systems may allow you to enter a data element one time and it will automatically fill in all fields

where that information is required. When using hard copies you will have to enter the Section A information for every module.

#### Section B

#### Section B: Injured Person



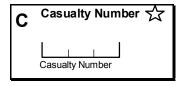
Section B is used to identify and classify the person exposed using a variety of means.

Start completing Section B by entering an assigned identification number. Often the individual's Social Security Number is used for this purpose.

Next, check the appropriate boxes indicating male or female, and the casualty's affiliation (career or volunteer). Paid-per call casualties should be considered as volunteers when information for this section is entered. Lastly, enter the casualty's first and last name, middle initial, and any suffix (i.e. Jr., Sr., and III) in the lines provided.

#### Section C

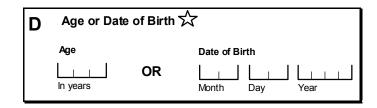
#### Section C: Casualty Number



Each casualty is given a number. The numbers are assigned consecutively starting with one (001) and continuing based upon how many fire service individuals were injured or killed at the incident, or resulting from the incident.

Section D

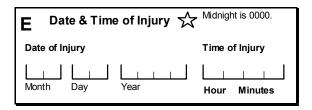
#### Section D: Age, or Date of Birth



Enter either the casualty's age or date of birth, but not both. If the age is entered, the numbers are assumed to represent years.

Section E

#### Section E: Date and Time of Injury

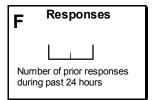


Enter the date and time of the injury in Section E. When the injury date is the same as the "date of the incident" enter the same date information that you entered in the "arrival block" of Section  $E_1$  of the Basic Module. If the injury date is different then enter the correct month, date, and year.

The time, both hours and minutes, of the injury is entered using the 24-hour clock where midnight is 0000.

Section F

#### Section F: Responses



	Record the number of incidents that the casualty responded to within the 24-hour period immediately prior to the time of injury.					
Section G	Section G: Usual Assignment, Physical Condition Just Prior To Injury, Severity, Taken To, Activity at Time of Injury					
Block $G_1$	G1 Usual Assignment  Suppression EMS Prevention Training Maintenance Communications Administration Fire investigation Other					
$Block\ G_2$	Describe the official assignment of the casualty in Block $G_1$ . This may not coincide with the firefighter's activity at the time of injury.					
	G2  Physical Condition Just Prior To Injury  Rested 0 Other Fatigued U Undetermined Ill or injured					
Block G <sub>3</sub>	Record the general physical condition of the casualty just prior to the injury in Block G <sub>2</sub> .					
	G3  Severity  Report only, including exposure  First aid only  Treated by physician (no lost time)  Moderate (lost time)  Severe (lost time)  Life threatening (lost time)  Death					

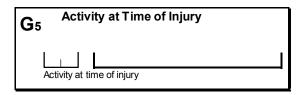
Describe the severity or seriousness of the casualty in relation to death and time lost from work in Block G<sub>3</sub>. Choose one of the seven options provided by checking the corresponding box.

Block G<sub>4</sub>

G <sub>4</sub>	T	aken To
<b>5</b>	1 4 5 6 7 0 N	Hospital   Doctor's office   Morgue/funeral home   Residence   Station or quarters   Other   Not transported

Use Block G<sub>4</sub> to record where the casualty went after the injury. Choose one of the seven options provided.

Block G<sub>5</sub>



Use Block G<sub>5</sub> to describe what type of activity was taking place at the time the injury occurred.

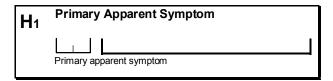
You will need to enter a code as part of the description. Use the NFRIS Quick Reference Guide to identify the activity of the firefighter at the time of the injury.

Section H

Section H: Primary Apparent Symptom and Primary Area of Body Injured

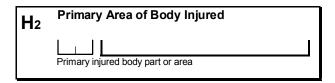
Record the primary symptom and areas of injury in Section H. Use Block  $H_1$  to enter the code that describes the casualty's **most serious injury**.

Block H<sub>1</sub>



The Emergency Medical Technician (EMT) or the person responsible for the pre-hospital emergency care phase of treatment will provide you with a determination of what appears to be the casualty's most serious injury.

Block H<sub>2</sub>



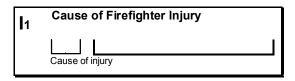
Block H<sub>2</sub> is used to record the body part or area that sustained the most serious injury. It should be the part of the body affected by the primary apparent symptom.

Section I

Section I: Cause of Firefighter Injury, Factor Contributing to Injury, and Object Involved in Injury

Record the data that describes the factors that caused or impacted the injury to the causality in Section I. Use the NFIRS Quick Reference Guide to complete this section.

Block  $I_1$ 

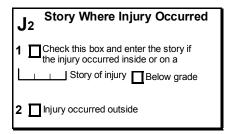


Use Block I<sub>1</sub> to describe the action or lack of action that directly resulted in the casualty.

	FIRE SERVICE CASUALTY MODULE: NFIRS 5
$Block\ I_2$	Factor Contributing to Injury  Contributing factor
Block I <sub>3</sub>	Enter the code and description for the most significant factor contributing to the casualty's injury in Block I <sub>2</sub> .
BIOCK 13	Object Involved in Injury  None  Object involved in injury
	Then enter the code and description of the object that contributed to the injury in Block $I_3$ .
Section J	Section J: Where Injury Occurred, Story Where Injury Occurred, Specific Location, and Vehicle Type
	Section J is completed in order to describe the place where the injury occurred.
$Block J_1$	J1 Where Injury Occurred  1

Mark the boxes in Block  $J_1$  to indicate where the injury occurred. The options include: enroute to scene, at the incident scene, at the station, and so forth.

Block  $J_2$ 



Complete Block  $J_2$  only if the injury occurred inside a structure. Check Box 1 if the person was inside or on the structure. Then write the story where the injury occurred on the line provided.

Check Box 2 if the injury occurred outside.

Block  $J_3$ 

J <sub>3</sub>	Specific Location Complete as applicable
65	☐ In aircraft
64	☐ In boat or ship or barge
63	☐ In rail vehicle
61	☐ In motor vehicle
54	☐ In sewer
53	☐ In tunnel
49	☐ In structure
45	☐ In attic
36	☐ In water
35	n well
34	☐ In ravine
33	☐ In quarry or mine
32	In ditch or trench
31	☐ In open pit
28	On steep grade
27	On fire escape/outside stairs
26	On vertical surface or ledge
25	On ground ladder
24	On aerial ladder or in basket
23	岗 On roof
22	☐ Outside at grade
00	님 Other

Block  $J_3$  is used to identify the casualty's specific location at the time of the injury.

Note the codes by the specific location descriptions. If you selected a vehicle code greater then 60, also select the vehicle type in  $J_4$ .

Block  $J_4$ 

J <sub>4</sub>	Vehicle Type	Complete ONLY if Specific Location
	1 Suppression vehicle 2 EMS vehicle 3 Other FD vehicle 4 Non-FD vehicle	code is >60

Block J<sub>4</sub> is used to identify the vehicle that was involved.

Section K

Section K: Contribution of Protective Equipment to Injury

Section K allows you to record data involving protective equipment. If protective equipment failed and contributed to the injury, mark the "Yes Box" in Block  $K_1$ . Complete the rest of Section K if you have marked Block  $K_1$ .

Block K<sub>1</sub>

<b>K</b> 1	Did protective equipment fail and contribute to the injury?  Please complete the remainder of this form ONLY if you answered YES.	Yes No	Y 🗆 N 🗵	Equipment Sequence Number	
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NOTE: Equipment Sequence Number - When more than one piece of protective equipment was a factor in the casualty's injury a module should be completed for each piece of equipment. Each item is given a number that is assigned consecutively starting with one (001) and continuing based on how many protective equipment items were involved.

#### Block K<sub>2</sub>

K <sub>2</sub> Protective Equipment Item	
Head or Face Protection	Coat, shirt, or trousers
11  Helmet 12  Full face protector 13  Partial protector 14  Goggles/eye protection 15  Hood 16  Ear protector 17  Neck protector 10  Other	21  Protective coat 22  Protective trousers 23  Uniform shirt 24  Uniform t-shirt 25  Uniform trousers 26  Uniform coat or jacket 27  Overalls 28  Apron or gown 20  Other
Boots or Shoes  31	es only eplate & steel toes s only e & steel toes ate & steel toes
Respiratory Protection  41 SCBA (demand) open circuit  42 SCBA (positive pressure) open  43 SCBA closed circuit  44 Not self-contained  45 Cartridge respirator  46 Dust or particle mask  40 Other	
Hand Protection  51  Firefighter gloves w/ wristlets 52  Firefighter gloves without wr 53  Work gloves 54  Hazmat gloves 55  Medical gloves 50  Other	
Special Equipment  61	reathing apparatus (SCUBA)

Block  $K_2$  is used to record information about the protective equipment item that was a factor in the casualty's injury.

The choices are grouped into the following categories:

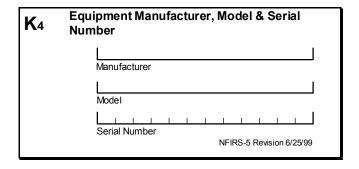
- Head or Face Protection
- Coat, Shirt, or Trousers
- Boots or Shoes
- Hand Protection
- Special Equipment

Block  $K_3$ 

Kз	Protective Equipment Problem
	Check one box to indicate the main problem that
11	☐ Burned
12	☐ Melted
21	Fractured, cracked or broken
22	☐ Punctured
23	☐ Scratched
24	☐ Knocked off
25	Cut or ripped
31	☐ Trapped steam or hazardous gas
32	☐ Insufficient insulation
33	Object fell in or onto equipment item
41	☐ Failed under impact
42	☐ Face piece or hose detached
43	Exhalation valve inoperative or damaged
44	Harness detached or separated
45	Regulator failed to operate
46	Regulator damaged by contact
47	Problem with admissions valve
48	Alarm failed to operate
49	Alarm damaged by contact
51	Supply cylinder or valve failed to operate
52	Supply cylinder/valve damaged by contact
53	Supply cylinder— insufficient air/oxygen
94	Did not fit properly
95	Not properly serviced or stored prior to use
96	Not used for designed purpose
97	Not used as recommended by manufacturer
00	Other equipment problem

Use  $K_3$  to record the most significant problem with the piece of equipment that failed and contributed to the injury. Twenty-seven choices are provided.

Block K4



Block K<sub>4</sub> provides space to record information about the equipment manufacturer, model number or type, and the serial number.

Enter the name of the company that made/manufactured the piece of equipment involved on the first line. Enter the manufacturer's model name in the next space. If a model name is not available you should give a general physical description of the equipment. Enter the manufacturer's serial number, which is usually stamped on the equipment's identification plate on the last line.

Summary

#### SUMMARY

The Fire Service Casualty Module is used to report fire service personnel injuries, deaths, or exposures that are associated with a particular incident. This casualty information is used by Health and Safety Officers to reduce the risks associated with all types of work related casualties.

Researchers, educators, equipment makers, design engineers, and governmental regulatory agencies use the specific information provided to make various determinations such as which specific pieces of equipment are involved in casualties. Complete information must be collected for each individual casualty in order to provide the data that is needed to make determinations related to improving job safety.

#### **EXAMPLE: HIGH-RISE FIRE**

Directions: Read the call information in the example below. Then look at the completed Fire Service Casualty Module Form. Look at each section and follow along with the proper use of the information as applicable to the Fire Service Casualty Module.

On May 21, 1999, FDID#TR300 received a High-rise Box 13-28 at 22:35 and responded to 2045 Beach Blvd. Fire was reported to be located on the 12th floor. The crew assigned to Engine 131 was sleeping prior to the call. It was their first call during a 24-hour shift that began at 07:00 hours. E-131 responded with a crew of 4 personnel.

Ambulance 139 was returning to the station from a previous call and was sent on the box assignment. The ambulance arrived first. Their initial on-scene report was of fire showing from the 12th floor with people trapped. They requested a 2nd alarm. Chief 13 advised E-131 to do search and rescue and assigned the 2nd engine company to attack the fire and provide a safe exit for evacuation. The personnel on E-131 consisted of career personnel. They were Captain Tom Jones, Tech. Marc Helton, F/F Bob Wilson and F/F Kenny Segal. F/F Wilson was 57-years-old and the most experienced. He led the crew to the stair well and planned to walk up the to the 12th floor.

The building was about 20-years-old and did not have an elevator emergency control system. As the crew approached the 10th floor F/F Wilson began complaining of chest pains and shortness of breath, Captain Jones advised the officer in charge that his crew was taking a couple minutes break to rest. At this point F/F Wilson collapsed and stopped breathing. Captain Jones started CPR on F/F Wilson and advised officer in charge to call for a medic unit for F/F Wilson. CPR was continued until the arrival of the advanced life support unit. F/F Wilson was removed from the building and then transported to Mercy General Hospital where he was pronounced dead at 23:50 hours.

Α		MM DD YYYY 0 6 2 1 1 1999	Station Incident N	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Delete Change  NFIRS - 5 Fire Service Casualty
Bo First	Injured Person  b Name M	dentification Number  Wilson  Last Name	1 <b>∑</b> Male 2 <b>□</b> Fema		C Casualty Number 💢  \[ \begin{array}{c} 0 & 0 & 1 \\ \text{Casualty Number} \end{array}
D	Age Date of Birth Age Date of O   0   15   7   OR   Month	of Birth  Day Year	Date & Time of  Date of Injury  O   6   2   1   1  Month Day Year	Time of Injury	Responses  O + O  Number of prior responses during past 24 hours
G1 1 2 3 4 5 6 7 8 0	Usual Assignment  Suppression EMS Prevention Training Maintenance Communications Administration Fire investigation Other	1 Rested 2 Fatigued 4 Ill or injured  Severity 1 Report only, inc. 2 First aid only	ne) ´	Taken To  1 Hospital  4 Doctor's o  5 Morgue/ful  6 Residence  7 Station or  0 Other  N Not transp  Activity at Time  4 10 Suppressi  Activity at time of injury	neral home quarters orted e of Injury
H <sub>1</sub>	Primary Apparent Symptom  O + 3 Shortness of Breath Primary apparent symptom  Primary Area of Body Injured  8 + 2 Heart Primary injured body part or area		Cause of Firefighter  7 Overexertion Cause of injury  Factor Contributing  0 0 Contributing  Contributing factor	to Injury	Object Involved in Injury  None
2		Specific Location    Ja	or barge  e  ne ch  outside stairs face or ledge der r or in basket	J4  Vehicle Type  1 Suppression of EMS vehicle 3 Other FD vehic 4 Non-FD vehic  Remarks  If protective equipment falls and was a factor in this injuplease complete the other side of this form.	icle le

68  Flight or jump suit 69  Brush suit 71  Exposure suit 72  Self-contained underwater breathing apparatus (SCUBA)		Did protective equipment fail and Please complete the remainder of this form			Yes No	Y □ N X	Equipment Sequence Number		NFIRS - 5 Fire Service Casualty
Head or Face Protection	<b>√</b> 2 F	Protective Equipment Item			<b>K</b> <sub>3</sub>	Prote	ctive Equipmen	t Problem	$\overline{}$
Protective trousers   12		or Face Protection	Coat, sh	nirt, or trousers		Check	one box to indicate	e the main pro	oblem that
Boots or Shoes  31	12 13 14 15 16 17	Full face protector Partial protector Goggles/eye protection Hood Ear protector Neck protector	22	Protective trousers Uniform shirt Uniform t-shirt Uniform trousers Uniform coat or jacket Overalls Apron or gown	12 21 22	Mel Fra Pur	ted ctured, cracked actured	or broken	
32	Boot	s or Shoes	20 🗀	Other	24	☐ Kno	ocked off		
33   3/4 length boots w/ steel toes only   36   Safety shoes w/ steel toes only   37   Safety shoes w/ steel toes only   38   Non-safety shoes w/ steel toes only   38   Non-safety shoes w/ steel toes only   39   Non-safety shoes w/ steel toes only   30   Other   41   Failed under impact   42   Face piece or hose detached   43   Exhalation valve inoperative or damage   44   Harness detached   45   Cartridge respirator   46   Dust or particle mask   40   Other   46   Dust or particle mask   40   Other   46   Dust or particle mask   40   Other   47   Problem with admissions valve   48   Alarm failed to operate   49   Alarm damaged by contact   50   Partially encapsulated, reusable chemical suit   50   Partially encapsulated, disposable chemical suit   50   Partially encapsulated, disposable chemical suit   50   Partially encapsulated, disposable chemical suit   50   Partially encapsulated, reusable chemical suit   50   Partially encapsulated, reusable chemical suit   50   Partially encapsulated, reusable chemical suit   50   Partially encapsulated, disposable chemical suit   50   Partially encapsulated, disposable chemical suit   50   Partially encapsulated, reusable chemical suit   50   Partially en				steel toes	25	☐ Cut	or ripped		
Boots without steel baseplate & steel toes   Safety shoes w/ steel baseplate & steel toes   Safety shoes w/ steel baseplate & steel toes   Safety shoes w/ steel toes only   Safety shoes w/ shoes sheet toes only   Safety shoes w/ safety sh	33	3/4 length boots w/ steel base	olate & st	eel toes	31	☐ Tra	pped steam or h	nazardous (	gas
37	35	Boots without steel baseplate	& steel to		32	☐ Ins	ufficient insulati	ion	
Respiratory Protection		Safety shoes w/ steel toes only		toes	33	Obj	ect fell in or ont	to equipme	nt item
SCBA (demand) open circuit   42	=				41	☐ Fail	ed under impac	:t	
SCBA (positive pressure) open circuit   43	Resp	piratory Protection			42	☐ Fac	e piece or hose	detached	
43			n circuit		43	☐ Exh	alation valve in	operative o	or damaged
45	43	SCBA closed circuit			44 🗖 Harness detached or separated				
46 Regulator damaged by contact  Hand Protection  51 Firefighter gloves w/ wristlets 52 Firefighter gloves without wristlets 53 Work gloves 54 Hazmat gloves 55 Medical gloves 55 Medical gloves 50 Other  Special Equipment  61 Proximity suit for entry 62 Proximity suit for non-entry 63 Totally encapsulated, disposable chemical suit 64 Totally encapsulated, reusable chemical suit 65 Partially encapsulated, disposable chemical suit 66 Partially encapsulated, disposable chemical suit 67 Flash protection suit 68 Flight or jump suit 69 Brush suit 71 Exposure suit 72 Self-contained underwater breathing apparatus (SCUBA)	45	Cartridge respirator			45 Regulator failed to operate				
Firefighter gloves w/ wristlets   48					46 Regulator damaged by contact				
52 Firefighter gloves without wristlets 53 Work gloves 54 Hazmat gloves 55 Medical gloves 50 Other  Special Equipment 61 Proximity suit for entry 62 Proximity suit for non-entry 63 Totally encapsulated, reusable chemical suit 64 Totally encapsulated, reusable chemical suit 65 Partially encapsulated, reusable chemical suit 66 Partially encapsulated, disposable chemical suit 67 Flash protection suit 68 Flight or jump suit 69 Brush suit 71 Exposure suit 72 Self-contained underwater breathing apparatus (SCUBA)	Hand	d Protection			47	☐ Pro	blem with admi	ssions valv	/e
Supply cylinder or valve failed to operate			stlets		48	☐ Ala	rm failed to ope	rate	
55		☐ Work gloves			49	Ala	rm damaged by	contact	
Special Equipment  61	55	Medical gloves			51	☐ Sup	ply cylinder or	valve failed	d to operate
Proximity suit for entry   53		<del></del>			52	☐ Sup	ply cylinder/va	lve damage	ed by contact
63					53	Sup	ply cylinder— i	nsufficient	air/oxygen
64			e chemica	al suit	94	Did	not fit properly		
66 Partially encapsulated, disposable chemical suit 67 Flash protection suit 68 Flight or jump suit 69 Brush suit 71 Exposure suit 72 Self-contained underwater breathing apparatus (SCUBA)  96 Not used for designed purpose 97 Not used as recommended by manufact 00 Other equipment problem	64 Totally encapsulated, disposable chemical suit			95	☐ Not	properly service	ed or store	ed prior to use	
68 Flight or jump suit 69 Brush suit 71 Exposure suit 72 Self-contained underwater breathing apparatus (SCUBA)	66 Partially encapsulated, disposable chemical suit		96	☐ Not	used for design	ned purpos	se		
69 Brush suit 71 Exposure suit 72 Self-contained underwater breathing apparatus (SCUBA)				97  Not used as recommended by manufacturer				manufacturer	
72 Self-contained underwater breathing apparatus (SCUBA)					00	Oth	er equipment p	roblem	
/3 I I Lito proconvor		<b>=</b>	eathing ap	oparatus (SCUBA)	K <sub>4</sub>		•	turer, Mod	el & Serial
74 Life belt or ladder belt Was the failure of	74	Life belt or ladder belt	BV66/ [/	Was the failure of		Num	iper I		, Ι
76 Radio distress device more than one item of Radio distress device	76	Radio distress device					Manufacturer		
a factor in the injury?	7		Į.	a factor in the injury?			Model		—— I
79 Vehicle safety belt 70 Other  If so, complete an additional page of this  NFIRS-5 Revision 6/2	79	Vehicle safety belt						NEIDO	-5 Revision 6/25/00

#### EXERCISE SCENARIO 5-1: FIRE CAPTAIN INJURY ON SCENE OF FIRE

Directions: Read the call information in the exercise below. Use the information provided to complete the Fire Service Casualty Module form. Compare your work to the answers provided on the subsequent completed Fire Service Casualty Module form. If your answers are different from the ones provided, read over the Fire Service Casualty Module again.

At 0655 on November 21, 1997, the A-1 Alarm Company notified the Regional 911 dispatch center of smoke detector activation at the Busy Bee Market located at the corner of First and Main Streets in the town of North Book, WI 12345. Engine 45 and Truck 22 from the North Brook Fire Department (FDID TR100) were dispatched to the incident at 0658.

Truck 22 arrived at the market at 0705 and reported smoke showing from the one-story building and water running from under the front door. The crew of the Truck Company forced entry and found that a sprinkler head had been activated and was in the process of extinguishing a small fire behind the clerk's counter in the market.

Engine 45, which arrived on location at 0707, extinguished the remaining fire and the Truck Company ventilated smoke from the market and shut down the sprinkler system. The fire was declared under control at 0727.

While the crews were cleaning up and putting the sprinkler system back in service, the owner of the market, Angela Anderson, arrived. She told the Engine Company Captain that she had worked at the market until midnight. It had been a cold evening and she had plugged in an electric heater behind the counter to keep warm. She did not remember if the heater was shut off before she left the market. Ms. Anderson estimated damage to the store contents to be \$1,000. The store had 2,500 square feet of floor space and damage to it was estimated to be \$4,000.

During the investigation, Fire Marshal Stan found a portable heater lying on its side behind the counter. He determined that the heater ignited a rubber mat on the floor near the cash register. The automatic shut off feature on the heater failed to operate when the device tipped over. The heater was a Heatomatic, model 25, serial number 123666.

Further investigation determined that the hard-wired smoke/heat detector had properly operated and notified the alarm company of the fire. The sprinkler system had also operated properly - one sprinkler head activated and controlled the fire.

While advancing the hoseline to the seat of the fire, Captain Paul Clarke (age 37) was injured when the ceiling and other burning materials fell on him trapping him temporarily. He suffered a burn to his left wrist in the area between his glove and the sleeve of his turnout coat and a broken leg. The gloves were the "Firefighter" model made by the ABC Corporation.

Captain Clarke's injury occurred at 0715. Prior to this incident, Clarke and his crew had responded to two other fires during the night and five other incidents on their shift. After the fire was extinguished, Captain Clarke was taken to Mercy Hospital for treatment of the burn. He returned to work six months later. The last company cleared the scene at 0815. An incident number of 9700967 was assigned for this fire.

Α		MM DD YYYY	Number A Exposure A Delete Casualty
B	Injured Person	dentification Number 2 Fem	
D	Age or Date of Birth Age Date of Date	of Birth  Date of Injury  Day Year  Date of Injury  Month Day Year	F Responses  Time of Injury  Number of prior responses during past 24 hours
G1 1 2 3 4 5 6 7 8 0	Usual Assignment  Suppression EMS Prevention Training Maintenance Communications Administration Fire investigation Other	1 Rested 0 Other 2 Fatigued U Undetermined 4 Ill or injured	d Hospital Doctor's office Morgue/funeral home Residence Station or quarters Ohother Not transported
H <sub>1</sub>	Primary Apparent Symptom	Cause of Firefighte	Ohio et la colo e dia
H <sub>2</sub>	Primary apparent symptom  Primary Area of Body Injured  Primary injured body part or area	Cause of injury	I3 Injury □None

<b>K</b> 1	Did protective equipment fail and contribute to the injury?  Please complete the remainder of this form ONLY if you answered YES.					Equipment Sequence Number  NFIRS - 5 Fire Service Casualty
K <sub>2</sub>	Protective Equipment Item		Kз	P	rotect	tive Equipment Problem
Hea	d or Face Protection	Coat, shirt, or trousers		С	heck o	ne box to indicate the main problem that
11 12 13 14 15 16 17 10	Helmet Full face protector Partial protector Goggles/eye protection Hood Ear protector Neck protector Other  ts or Shoes Knee length boots w/ steel ba	21  Protective coat 22  Protective trousers 23  Uniform shirt 24  Uniform t-shirt 25  Uniform trousers 26  Uniform coat or jacket 27  Overalls 28  Apron or gown 20  Other	11 12 21 22 23 24		Punc Scrat Knoc	ed tured, cracked or broken ctured
32 33	■ Knee length boots w/ steel to	es only	25	_		or ripped ped steam or hazardous gas
34	3/4 length boots w/ steel toes	only	32			fficient insulation
35 36	Boots without steel baseplate Safety shoes w/ steel basepla	ite & steel toes	33			ct fell in or onto equipment item
37 38	Safety shoes w/ steel toes on Non-safety shoes	ıy	41		•	d under impact
30 Res	Other		42		Face	piece or hose detached
41	SCBA (demand) open circuit		43		Exha	lation valve inoperative or damaged
42 43	SCBA (positive pressure) ope	en circuit	44		Harn	ess detached or separated
44 45	☐ Not self-contained☐ Cartridge respirator		45		Regu	ulator failed to operate
46 40	☐ Dust or particle mask☐ Other		46		Regu	ılator damaged by contact
Ha	nd Protection		47		Prob	lem with admissions valve
51 52	Firefighter gloves w/ wristlets Firefighter gloves without writer		48		Alarn	n failed to operate
53 54	☐ Work gloves ☐ Hazmat gloves		49		Alarn	n damaged by contact
55 50	☐ Medical gloves		51		Supp	oly cylinder or valve failed to operate
	Other		52		Supp	bly cylinder/valve damaged by contact
61	Proximity suit for entry		53		Supp	oly cylinder— insufficient air/oxygen
62 63	Proximity suit for non-entry Totally encapsulated, reusab	le chemical suit	94		Did n	not fit properly
64 65	Totally encapsulated, dispos Partially encapsulated, reusa	able chemical suit	95		Not p	properly serviced or stored prior to use
66	Partially encapsulated, dispo		96		Not u	used for designed purpose
67 68	Flash protection suit Flight or jump suit		97		Not u	used as recommended by manufacturer
69 71	☐ Brush suit☐ Exposure suit		00		Othe	r equipment problem
72 73	Self-contained underwater br	reathing apparatus (SCUBA)	K <sub>4</sub>			oment Manufacturer, Model & Serial
74 75 76 77 78 79	Life belt or ladder belt Personal alert safety system Radio distress device Personal lighting Fire shelter or tent Vehicle safety belt Other	(PASS)  Was the failure of more than one item of protective equipment a factor in the injury? If so, complete an additional page of this			L M L	Anufacturer  Adodel  Serial Number  NFIRS-5 Revision 6/25/99

Α	$ \begin{array}{c cccc} T_{1}R_{1}1_{1}0_{1}0 & W_{1}I & \\ \hline \text{FDID} & & \text{State} & \\ \end{array} $	MM DD YYYY	Normber ☆ Exposure ☆ □Change NFIRS - 5    O   O   O   O
B Pau First		Identification Number 2 Fem  Clarke  MI Last Name	1 Career ale 2 □Volunteer □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
D	Age or Date of Birth ☆  Age Date  O   5   7   OR	of Birth Date of Injury	F Responses  Time of Injury  1   9   9   7    Hour Minutes  Midnight is 0000.  F Responses  0   7    Number of prior responses during past 24 hours
G1 1 2 3 4 5 6 7 8 0	Usual Assignment  Suppression EMS Prevention Training Maintenance Communications Administration Fire investigation Other	1 Rested 0 Other 2 K Fatigued U Undetermined 4 Ill or injured	1 X Hospital 4 Doctor's office 5 Morgue/funeral home 6 Residence 7 Station or quarters 0 Other N Not transported
H <sub>1</sub>	Primary Apparent Symptom  1 12 Burns only thermal Primary apparent symptom  Primary Area of Body Injure  9 13 Multiple Body Parts Primary injured body part or area	La Lexposure to Cause of injury  Factor Contributing	None   3   Floor or Ceiling
2	Where Injury Occurred  Enroute to FD location At FD location Enroute to incident scene Enroute to medical facility At scene in structure At scene outside At medical facility Returning from incident Returning from med facility Other  Story Where Injury Occurred Check this box and enter the story if the injury occurred inside or on a	Specific Location   Complete as applicable	Vehicle Type  Complete ONLY if Specific Location code is >60  Suppression vehicle  Mon-FD vehicle  Remarks  If protective equipment failed and was a factor in this injury,

K₁	Did protective equipment fail and Please complete the remainder of this form		Yes Y ☐ Equipment Sequence No Number ☐ Fire Service Casualty
K <sub>2</sub>	Protective Equipment Item		K <sub>3</sub> Protective Equipment Problem
	d or Face Protection	Coat, shirt, or trousers	Check one box to indicate the main problem that
11	Helmet	21 Protective coat	11 Burned
12 13	☐ Full face protector ☐ Partial protector	22 Protective trousers 23 Uniform shirt	12 Melted
14 15	Goggles/eye protection	24 Uniform t-shirt 25 Uniform trousers	21 Fractured, cracked or broken
16 17	Ear protector Neck protector	26 Uniform coat or jacket 27 Overalls	22 Punctured
10	Other	28 Apron or gown 20 Other	23 Scratched
Во	ots or Shoes	20 Duller	24  Knocked off
31 32	Knee length boots w/ steel ba		25 Cut or ripped
33 34	3/4 length boots w/ steel base	eplate & steel toes	31 Trapped steam or hazardous gas
35	Boots without steel baseplate	e & steel toes	32 Insufficient insulation
36 37	Safety shoes w/ steel basepla Safety shoes w/ steel toes on		33 Dobject fell in or onto equipment item
38 30	☐ Non-safety shoes☐ Other		41
Res	spiratory Protection		42 Face piece or hose detached
41 42	<ul><li>☐ SCBA (demand) open circuit</li><li>☐ SCBA (positive pressure) open</li></ul>		43 Exhalation valve inoperative or damaged
43 44	SCBA closed circuit Not self-contained		44 Harness detached or separated
45 46	Cartridge respirator Dust or particle mask		45 Regulator failed to operate
40	Other		46 ☐ Regulator damaged by contact
Hai	nd Protection		47 Problem with admissions valve
51 52	Firefighter gloves w/ wristlets Firefighter gloves without wr		48 Alarm failed to operate
53 54	☐ Work gloves ☐ Hazmat gloves		49 Alarm damaged by contact
55 50	☐ Medical gloves		51 Supply cylinder or valve failed to operate
	ecial Equipment		52 Supply cylinder/valve damaged by contact
61	Proximity suit for entry		53 Supply cylinder— insufficient air/oxygen
62 63	☐ Proximity suit for non-entry ☐ Totally encapsulated, reusab	le chemical suit	94 Did not fit properly
64 65	■ Totally encapsulated, dispos	able chemical suit	95 Not properly serviced or stored prior to use
66	Partially encapsulated, dispo		96 Not used for designed purpose
67 68	Flash protection suit Flight or jump suit		97 Not used as recommended by manufacturer
69 71	☐ Brush suit☐ Exposure suit		00   Other equipment problem
72 73		reathing apparatus (SCUBA)	K4 Equipment Manufacturer, Model & Serial
74	Life belt or ladder belt	(DAGE) Was the failure of	Number
75 76	Radio distress device	more than one item of protective equipment	Manufacturer
77 78	Personal lighting Fire shelter or tent	a factor in the injury?	Model
79 70	☐ Vehicle safety belt ☐ Other	If so, complete an additional page of this	Serial Number
	Julio1		NFIRS-5 Revision 6/25/99

#### **EXERCISE SCENARIO 5-2: CARY STREET FIRE**

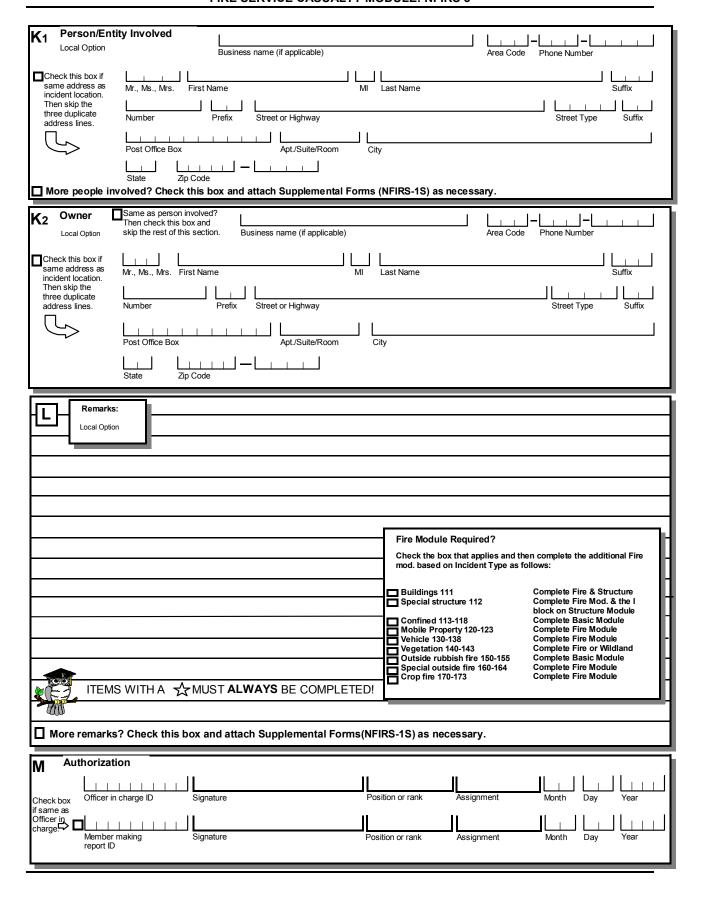
Directions: Read the call information in the exercise below. Use the information provided to complete the entire Fire Service Casualty Module form and the other required forms. Compare your work to the answers provided in Appendix A. If your answers are different from the ones provided, read over the Fire Service Casualty Module again.

The Alberta Fire Department (FDID 92188) responded to a reported house fire at 5 East Cary Street, Brunswick, Virginia 23351 on May 1. The dispatcher assigned the incident (#5433) to Engine Co. 3 from Shift A. The unit received the alarm at 12:53 p.m. and arrived at the scene at 1:05 p.m. with a four-person engine crew, a two-person truck crew, and a two-person pumper crew. The owner of the single family dwelling, Mrs. Christy Gordon, said that she was warming her lunch on the stove when the grease from the pan began to burn. The gas stove was a Whirlpool, Model RF330PXVN, Serial Number F925888840, Year 2000. The fire spread from the pan to the curtains. She fell asleep upstairs and was alerted when the hardwired smoke detector activated. The flame damage was confined to the kitchen. The 2,000 square feet, two-story home was filled with smoke in the other rooms. She called 911. The firefighters extinguished the fire and remove smoke from the other rooms. The fire was brought under controlled at 1:25 p.m. There was \$24,000 fire loss to property and \$9,600 content loss. The value of the property was \$161,000 and the content value was \$80,400. The last unit cleared the scene at 2:40 p.m. FF1 Adam C. Wallner, Badge No. 224, completed the report after returning to Station No. 2. Captain Tonya S. Gordon, Badge No. 105, was the officer in charge. The fire department keeps records on the location of all responses. The incident was in Census Tract 501.10, District A12.

Mrs. Gordon, 66-year old, white female, was overcome by smoke in her bedroom. She had problems finding the exit because of the smoke. Her injury occurred at 12:50 p.m. Fire department personnel treated her at the scene. Her injury was considered minor but since she said that she felt dizzy, a local EMS provider transported her to the Proctor Medical Hospital for observation.

While investigating the incident, Fire Officer Juan M. Mills, a 36-year old, Hispanic, white male, slipped on loose floor materials and sprained his right ankle. His normal assignment is investigation. He was injured at 2:15 p.m. and treated at the scene by local EMS provider personnel. For precautions, he was also transported to Proctor Medical Hospital for x-rays. He was treated by the physician and given the okay to return to work. This was his first response within 24 hours. Officer Mills is a career member of the department. His badge number is 317.

A MM State Mincident Da	DD YYYY
Street address Intersection In front of Rear of Adjacent to Directions Wildland Wildland Wildland Wildland Apt/Suite/Roon	
C Incident Type	E1 Dates & Times    Month   Day   Year   Hour   Min
F Actions Taken 🏠  Primary Action Taken (1)  Additional Action Taken (2)  Additional Action Taken (3)	G1 Resources  G2 Estimated Dollar Losses & Values    Check this box and skip this section if an Apparatus or Personnel form is used.    Apparatus Personnel     Suppression
Fire Service L  Fire Service Civilian Fire Cas4  Fire Service Civilian L  EMS-6  HazMat-7  Wildland Fire-8  Apparatus-9  Detector ale	ths Injuries    N
Property Use	341



Α	Complete this side for all fires  FDID State Incident Date	YYYY 	Station Incident Number	Exposur	Delete NFIRS - 2 Fire
B B <sub>1</sub>	Property Details  Not Residential Estimated number of residential living units in building of origin whether or not all units became involved		C On-Site Materials or Products  Enter up to three codes. Check one entered.  On-site material (1)	None e box for each code	Complete if there were any significant amounts of commercial, industrial, energy or agricultural products or materials on the property, whether or not they became involved  1  Bulk storage or warehousing 2  Processing or manufacturing 3  Packaged goods for sale
B <sub>2</sub>	Number of buildings involved    Buildings not involved		On-site material (2)  On-site material (3)		A Repair or service  Bulk storage or warehousing Processing or manufacturing Repair or service  Bulk storage or warehousing Repair or service  Bulk storage or warehousing Processing or manufacturing Repair or service
Б	Ignition	I I I I	Cause of Ignition 😾	N Olis te	E <sub>3</sub> Human Factors
D <sub>1</sub>	1 - 11		Check box if this is an exposure repo	rt. Skip to Section G	Check all applicable boxes None
D <sub>1</sub>	Area of fire origin Area of fire origin Heat source	2 U 3 DF: 4 DA 5 DC	nintentional nintentional ailure of equipment or heat ct of nature ause under investigation ause undetermined after in		1
Dз	Item first ignited 1 Check box if fire spread was	E <sub>2</sub> F	actors Contributing To Ignit	tion None	- 5 □Physically disabled 6 □Multiple persons involved
D4	Type of material first ignited  Required only if item first ignited code is 00 or <70		contributing to ignition (1)		Age was a factor  Estimated age of person involved  Male  Person in Male
F1  Equip Brann Mode Seria		F3 Portab one pe	Equipment Power Source  Int Power Source  Equipment Portability  Portable  Stationary  Ide equipment normally can be moved by rison, is designed to be used in multiple rise, and requires no tools to install.	G	ctor (2)
ш.	Mobile Property Involved	ı. Mo	obile Property Type & Make	Loca	l Use
	Not involved in ignition, but burned Involved in ignition, but did not burn Involved in ignition and burned ile property model	Mobile pr	operty type  operty make  Year	Som	Pre-Fire Plan Available e of the information presented in this report be based upon reports from other agencies:  Arson report attached Police report attached Coroner report attached Other reports attached
Lice		Number	fa		
느	Structure fire? Please be sure to complete the other side of this form.  NFIRS-2 Revision 01/19/99				

Structure Type	Count the ROOF of the highest store to experating utinely used or renovation secured unsecured blished	Structure Fire  OR  OR	
Story of fire origin    Ja   Count the ROOF as	ories w/ significant damage me damage) ories w/ heavy damage me damage) ories w/ extreme damage	Material Contributing Most To Flame Spread  Check if no flame spread OR same as material first ignited OR unable to determine  K1  Item contributing most to flame spread  K2  Type of material contributing most to flame spread  Required only if item contributing code is 00 or<70.	
L1	ire only n rire with battery n with battery nical le detectors & power es ermined or Operation o small to activate ed Complete Section L5 co operate Complete Section L6	Detector Effectiveness   Required if detector operated.	
M1 Presence of Automatic Extinguishment System N None Present Persent Operated & effective (go to M4) Operated & not effective (M4) Type of Automatic Extinguishment System Required if fire was within designed range Operated & effective (go to M4) Operated & not effective (M4) Fire too small to activate Operated & not effective (M4) Fire too small to activate Failed to operate (go to M5) Other Other Other Other Other Other Foam system Fine not in area protected Failed to operating Fire not in area protected M4 Number of Sprinkler Heads Operating Required if system failed Not enough agent discharged but did not reach fire Undetermined  M5 Automatic Extinguishment System Failure Reason Required if system failed  Not enough agent discharged Other reach fire Undetermined  M6 System Failure Reason Required if system shut off Undetermined  Not enough agent discharged Undetermined  M7 Number of Sprinkler Heads Operating Required if system operated M8 Number of Sprinkler Heads Operating Required if system failed  Not enough agent discharged Undetermined  Not enough agent discharged Undetermined Undetermined  Not enough agent discharged Undetermined Undetermined Undetermined			

A MM DD FDID State Incident Date		Delete Civilian Fire Casualty	
B Injured Person  First Name	☆1 ☐Male	2 ☐Female C Casualty ☆ Number Casualty Number	
Age OR Date of Birth  Date of Birth  E1 1	Race White Black Am. Indian, Eskimo Asian Other, multi-racial Undetermined Ethnicity  Hispanic  Hispanic  Hispanic  F Affiliation 1 Civilian 2 EMS, not 3 Police 0 Other  Date & Time of Ir	fire department    H   Severity	
Cause of Injury  1			
7 Unable to act 8 Irrational act 0 Other 1	Check ONE box. If undetermined, leave blank and skip to Section N.  In area of fire origin In building, but not in area	M3 Story at Start of Incident Complete ONLY if injury occurred INSIDE Story at START of incident below grade  M4 Story Where Injury Occurred Story where injury occurred, if below grade  M5 Specific Location at Time of Injury Complete ONLY if casualty NOT in area of origin Specific location at time of injury	
N Primary Apparent Symptom  01 Smoke only, asphyxiation 11 Burns & smoke inhalation 12 Burns only 21 Cut, laceration 33 Strain or sprain 96 Shock 98 Pain only  Look up a code only if the symptom is NOT found above	Primary Area of Body Injured  1	P Disposition  Transported to emergency care facility  Remarks Local option  NFIRS-4 Revision 11/17/98	

A	FDID State State	MM DD YYYY  Licident Date Station Incident	Delete NFIRS - 5 Fire Service Casualty
<b>B</b> L	Injured Person	I Last Name	
D	Age Date of Birth Age Date of Birth OR Month	of Birth Date of Injury	F Responses  Time of Injury  Hour Minutes  Midnight is 0000.  Responses  Number of prior responses during past 24 hours
G1 1 2 3 4 5 6 7 8 0	Usual Assignment  Suppression EMS Prevention Training Maintenance Communications Administration Fire investigation Other	1 Rested 0 Other 2 Fatigued U Undetermine 4 Ill or injured	1 Hospital 4 Doctor's office 5 Morgue/funeral home 6 Residence 7 Station or quarters 0 Other N Not transported
Н1	Primary Apparent Symptom	Once of Firefield	
H <sub>2</sub>	Primary Area of Body Injured Primary injured body part or area	d Cause of Firefighte  Cause of Firefighte  Cause of injury  Cause of injury  Cause of Firefighte  Cause of Injury  Cause of Firefighte  Cause of Injury  Cause of Injury  Cause of Injury  Contributing factor	I3 Injury ☐None

K1 Did protective equipment fail and Please complete the remainder of this for	• •	Yes Y	vice
K <sub>2</sub> Protective Equipment Item		K <sub>3</sub> Protective Equipment Problem	
Head or Face Protection	Coat, shirt, or trousers	Check one box to indicate the main problem that	
_	21 Protective coat	11  Burned	
11 Helmet 12 Full face protector	22 Protective trousers	12 Melted	
13 Partial protector 14 Goggles/eye protection	23 Uniform shirt 24 Uniform t-shirt		
15 Hood	25 Uniform trousers	21 Fractured, cracked or broken	
16 Ear protector 17 Neck protector	26 Uniform coat or jacket 27 Overalls	22 Punctured	
10 Other	28 Apron or gown 20 Other	23 Scratched	
Boots or Shoes	20 🗖 Other	24 Knocked off	
31 Knee length boots w/ steel b		25 Cut or ripped	
32 Knee length boots w/ steel to 33 3/4 length boots w/ steel bas		31 Trapped steam or hazardous gas	
34 3/4 length boots w/ steel toes 35 Boots without steel baseplat	-	32 Insufficient insulation	
36 Safety shoes w/ steel basepl	ate & steel toes	33 Dobject fell in or onto equipment item	
37 Safety shoes w/ steel toes or 38 Non-safety shoes	nly	41 Failed under impact	
30 Other		·	
Respiratory Protection		42 Face piece or hose detached	
41 SCBA (demand) open circuit 42 SCBA (positive pressure) op		43 Exhalation valve inoperative or damaged	1
43 SCBA closed circuit 44 Not self-contained		44 Harness detached or separated	
45 Cartridge respirator		45 Regulator failed to operate	
46 Dust or particle mask 40 Other		46 Regulator damaged by contact	
Hand Protection		47 Problem with admissions valve	
51 Firefighter gloves w/ wristlet	s	48 Alarm failed to operate	
52 Firefighter gloves without wi	istlets	49 Alarm damaged by contact	
54 Hazmat gloves		51 Supply cylinder or valve failed to operate	_
55 Medical gloves 50 Other			
Special Equipment		52 ☐ Supply cylinder/valve damaged by conta	
61 Proximity suit for entry		53 Supply cylinder— insufficient air/oxygen	1
62 Proximity suit for non-entry 63 Totally encapsulated, reusal	ole chemical suit	94 Did not fit properly	
64 Totally encapsulated, dispos	able chemical suit	95 Not properly serviced or stored prior to u	use
65 Partially encapsulated, reuse 66 Partially encapsulated, disposition		96 Not used for designed purpose	
67 Flash protection suit 68 Flight or jump suit		97 Not used as recommended by manufactu	urer
69 Brush suit		00  Other equipment problem	
71 Exposure suit 72 Self-contained underwater b	reathing apparatus (SCUBA)		
73 Life preserver		Equipment Manufacturer, Model & Serial Number	
74 Life belt or ladder belt 75 Personal alert safety system	(PASS) Was the failure of		
76 Radio distress device	more than one item of protective equipment	Manufacturer	,
77 Personal lighting 78 Fire shelter or tent	a factor in the injury?	Model	<b>┙┃</b>
79 Vehicle safety belt 70 Other	additional page of this	L	<b>」  </b>
Oulei		NFIRS-5 Revision 6/25/9	99

#### Fire Service Casualty Module Test

- 1. The Fire Service Casualty Module is used to report the following:
  - (a) Fire service injuries or deaths involved with any incident response
  - (b) Fire service exposures involved with any incident response.
  - (c) Off duties fire service injuries or deaths
  - (d) On-duties fire service injuries or deaths at the fire station
- 2. The protective equipment section of the Fire Service Casualty Module is completed when:
  - (a) Protective equipment is worn
  - (b) Protective equipment was not worn but should have been worn
  - (c) Protective equipment failed OR contributed to the injury
  - (d) Protective equipment failed AND contributed to the injury
- 3. Forcible entry and extinguishing fire are examples of this Fire Service Casualty Module's data element.
  - (a) Usual Assignment
  - (b) Where Injury Occurred
  - (c) Activity at Time of Injury
  - (d) Actions Taken
- 4. Smoke inhalation and cut are examples of this Fire Service Casualty Module's data element.
  - (a) Factor Contributing to Injury
  - (b) Severity
  - (c) Primary Apparent Symptom
  - (d) Actions Taken
- 5. To determine the condition of the firefighter at the time of injury this Fire Service Casualty Module's data element is helpful.
  - (a) Responses
  - (b) Severity
  - (c) Physical Condition Just Prior to Injury
  - (d) Activity at Time of Injury